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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,344	07/03/2001	John T. Giles	TG3-101US	8262
24314	7590	07/27/2004	EXAMINER	
JANSSON, SHUPE & MUNGER, LTD 245 MAIN STREET RACINE, WI 53403			POKER, JENNIFER A	
			ART UNIT	PAPER NUMBER
			2832	
DATE MAILED: 07/27/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/897,344

Applicant(s)

GILES ET AL.

Examiner

Jennifer A. Poker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

General Status

1. This is a second action on the merits of amendment received April 19, 2004 of application filed July 3, 2001. Claims 19-41 are pending and are being examined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 30 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification. Applicant claims a "shaft rigidly attached to a back surface of the face portion." This shaft portion was not found within the written description of the specification.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 19, 22, 31, 35, and 41 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent Number 5,612,692 to Dugas, et al.

Dugas, et al, discloses a fully backlighted keyboard the keys comprising:

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(1) An upper surface having light transparent regions; the upper surface, as seen in figure 4, has edges (Abstract; figure 4);

(2) An opaque skirt and sidewalls, wherein the sidewalls may be transparent, opaque, or translucent; the skirt and sidewalls being attached to the upper surface's edges, (Abstract; figure 4);

(3) A cavity found within the center of each key. (Column 2, lines 32-33);

Dugas, et al, states that most of the components may be molded from plastic, although other suitable materials may be employed. (Column 10, lines 55-56).

Dugas, et al, discloses the claimed invention except for a mechanical attachment of the face and skirt portions. Dugas, et al, does however state that the upper surface and the skirt and sidewalls are attached. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize two portions and form them together, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179

Dugas does not specifically state that the skirt and upper surface are made of first and second resins. Dugas does, however, state that suitable materials may be used. It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use suitable molding materials, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. FURTHERMORE, applicant does not state within the specification that a first resin is used for the face portion and a second resin is used for the skirt portion. Applicant ONLY states that the invention provides a two-shot molded cap switch cap of synthetic resin, which has a skirt of one color and a face of a second color (page 3, lines 1-3; page 8, lines 1-10). Applicant does not state that TWO different resins must be used. Therefore, it would have been obvious to use the same

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material or different material, since applicant has not disclosed that the use of TWO DIFFERENT RESINS solves any stated problem, is for any particular purpose, or alters the functionality, and it appears that the invention would perform equally well with the top and skirt portion being made of the same material.

Regarding claim 22, Dugas, et al, further discloses that an inner surface of the sidewalls limit the vertical movement of keys in an upward direction (column 6, lines 5 and 6).

5. Claims 20, 23-29, 32, 34, and 36-40, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 5,612,692 to Dugas, et al, in view of U.S. Patent Number 5,588,760 to So.

Regarding claims 20, 23, Dugas, et al, discloses the claimed invention except for the male and female mating connection. It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to utilize male and female connection members since it was known in the art that male and female connection members are a common method of mating two components. An example reference is illustrated below.

So discloses a key switch for a computer keyboard wherein a key holder is used for mounting key switches. Each of the key holders comprises at least one female guide means for engagement with the male guide means one key switch. (Figure 3; column 3, lines 38-40)

One skilled in the art, at the time the invention was made, would have found it obvious to combine the teachings of Dugas, et al, with the teachings of So, and utilize a female/male mating connection in order to form a secure connection between the two components of the key/switch.

Regarding claims 24-27 and 36-38, Dugas, et al, further discloses:

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(1) An LED is disposed on a printed circuit board beneath the keyboard for illumination. (Abstract);

(2) Indicia on the upper surface, which are illuminated by light from the LEDs, which passes through the translucent dome and is visible through the transparent upper surface. (Column 2, lines 36-39);

(3) A pair of opposed fingers with projections attached to the upper surface and extending downward to make contact with the switch. (Figure 4A);

Dugas, et al, states that most of the components may be molded from plastic, although other suitable materials may be employed. (Column 10, lines 55-56).

Regarding claims 28, 29, 39, and 40, Dugas, et al, in view of So, discloses the claimed invention except for the negative image and sublimation process.

Regarding claims 28 and 39, due to applicant's own admission (disclosure, page 8, line 14-16), "The preferred printing process is a heat transfer/sublimation process utilizing dye-bearing sheets in mirror-negative image of the preselected images. Such processes are well known in the industry." Applicant admits that one with ordinary skill in the art would have known that such process existed for utilization for the formation of the indicia onto the key cap in order to provide an image for an operator to see what key it is that he/she may be using.

Regarding claim 29 and 40, even though the claim is limited by and defined by the recited process (sublimation process as claimed), the determination of patentability of the product is based on the product itself, and does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). Furthermore, it is well settled that the presence of process

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limitations (sublimation process as claimed) in product claims, which product does not otherwise distinguish over the prior art, cannot impart patentability to that product. (*In re Johnson*, 157 USPQ 670 1968)

6. Claims 21 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 5,612,692 to Dugas, et al, in view of U.S. Patent Number 5,283,407 to Pohl.

Dugas, et al, discloses the claimed invention except for the plurality of tiers.

Pohl discloses a pushbutton with a two-tiered structure connected to the button. The tier structure protects the button on against entry of debris (column 1, lines 49-50).

One skilled in the art, at the time the invention was made would have found it obvious to combine the teachings of Dugas, et al, with the teachings of Pohl and include a tiered structure in order to protect the cap/button from the entry of debris.

Response to Arguments

7. Applicant's arguments filed April 19, 2004 have been fully considered but they are not persuasive.

With regards to newly added claim 19, Applicant asserts that the Dugas reference does not teach or suggest a skirt portion formed of a synthetic second resin and mechanically attached to the rigid face portion by mating with the plurality of edges of the face portion as claimed. Examiner disagrees. Firstly, as noted in the claim rejection on previous pages, applicant does not describe nor disclose the use of a synthetic SECOND resin within the specification. Applicant simply states the use of a second color. Dugas clearly states that any material may be used. Furthermore, a plurality

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of edges of a top portion are clearly seen within the drawings and the skirt portion is clearly attached/joined to the top portion.

Applicant's arguments with respect to the So reference have been considered but are moot.

Further arguments are addressed below:

- (1) objection to the abstract is withdrawn;
- (2) rejections under 35 U.S.C. 112, first paragraph, are withdrawn.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

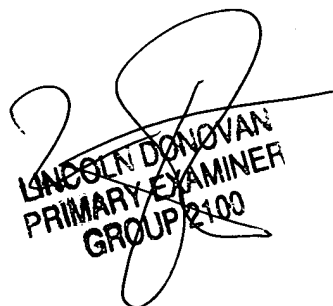
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Poker whose telephone number is 571-272-1997. The examiner can normally be reached on 5:30-4:00 Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jap
July 24, 2004


LINCOLN DONOVAN
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